

**CLAIMS**

## 1. A color simulation system comprising:

a display section;

5 a base screen displaying section displaying a base screen on the predetermined display area of the display section, the base screen having first through fifth layers;

a hair color data storage section recording RGB values of each of original hair colors to be subjected to hair coloring;

10 a hair color preparation data storage section recording RGB values of each of colors of hair color preparations;

a hair line data storage section recording image data of hair line;

a first input section for receiving an input of choice of one hair color from the original hair colors recorded in the hair color data storage section;

15 a second input section for receiving an input of choice of two hair color preparations from the hair color preparations recorded in the hair color preparation data storage section together with mixing ratio of the selected hair color preparations;

20 a first image displaying section displaying the hair line with the predetermined transparency on the first layer of the base screen according to the image data recorded in the hair line data storage section;

a second image displaying section retrieving the RGB value of the selected hair color from the hair color data storage section and displaying the selected hair color without transparency on the fifth layer of the base screen based on the input received at the first input section;

25 a third image displaying section retrieving the RGB values of the selected two hair color preparations from the hair color preparation data storage section and displaying the colors of the selected two hair color preparations with the transparency corresponding to the selected mixing ratio thereof on the third and fourth layers of the base screen, respectively based on the input received at the second input section; and

30 a fourth image displaying section retrieving the RGB value of the selected hair color from the hair color data storage section and displaying the selected hair color with the predetermined transparency on the second layer of the base screen based on the input received at the first input section.

35 2. The color simulation system according to claim 1, wherein the base screen displayed by the base screen displaying section has an intermediate layer between the

first and second layers, and the color simulation system further comprises a second hair line data storage section recording image data of second hair line which is different from the hair line recorded in the hair line data storage section in line pattern and color, and a fifth image data displaying section displaying the second hair line with the predetermined  
5 transparency on the intermediate layer of the base screen according to the image data recorded in the second hair line data storage section.

3. The color simulation system according to claim 2, wherein the third image displaying section displays the selected two hair color preparations with the colors which  
10 are deeper than the original colors thereof recorded in the hair color preparation data storage section by the predetermined RGB value and with the transparency corresponding to the selected mixing ratio thereof.

4. The color simulation system according to any one of claims 1 through 3,  
15 wherein the third image displaying section displays the color one of the selected two hair color preparations on the third layer with the transparency which is lower than the transparency determined by the selected mixing ratio and the color of the other of the selected two hair color preparations on the fourth layer with the transparency which is higher than the transparency determined by the selected mixing ration.

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5. The color simulation system according to any one of claims 1 through 4, wherein the display area of the display section is a hair of head of a model's face displayed by the display section.